

REEL #7

DODONOV, V.A.

1/2 009

UNCLASSIFIED

PROCESSING DATE--30OCT70

TITLE--REACTIONS OF ALPHA CHLOROETHYL TERT BUTYL PEROXIDE WITH  
ORGANOMAGNESIUM COMPOUNDS -U-

AUTHOR-(03)-RAZUVAYEV, G.A., DODONOV, V.A., ZABURDYAYEVA, S.N.

COUNTRY OF INFO--USSR

SOURCE--ZH. GRG. KHIM. 1970, 6(4), 657-8

D

DATE PUBLISHED--70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHLORINATED ORGANIC COMPOUND, ORGANIC PEROXIDE,  
ORGANOMAGNESIUM COMPOUND, CHEMICAL REACTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/2034

STEP NO--UR/0366/70/006/004/0657/0658

CIRC ACCESSION NO--AP0125622

UNCLASSIFIED

2/2 009

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125622

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE REACTION OF TERT BUOOCHMECL  
WITH RMGCL (R IS ME, BU, CYCLOHEXYL, PHCH SUB2, OR PH) IN ET SUB2 O  
SOLN. GAVE 50-5PERCENT TERT BUOOCHMER.

UNCLASSIFIED

USSR

UDC 621.385.632.2

DODONOV, Yu. I.

"Pin Mechanism For Tuning"

USSR Author's Certificate No 272999, filed 6 June 68, published 8 Aug 70 (from RZh--Elektronika i yeye primeneniye, No 4, April 1971, Abstract No 4A159P)

Translation: A plunger mechanism is proposed for tuning a magnetron. With the object of increasing the width and slope of the tuning band of the device, each plunger of the mechanism is made in the form of a solid metal bar, the ends of which have a cylindrical cavity with a longitudinal slot for connection with the electromagnetic field of the device and separated from the remaining part of the plunger by a transverse groove.

1/1

1/2 020 UNCLASSIFIED PROCESSING DATE--30OCT70  
TITLE--DETECTION OF ANTIBODY TO ONCOGENIC VIRUSES AND CERTAIN ADENOVIRUSES  
IN GREEN MONKEY SERA -U-  
AUTHOR--(05)--~~OGDONOVA~~, N.N., OMELCHENKO, T.N., VASILYEVA, N.N., TSETLIN,  
YE.M., ALTSHIEYN, A.D.  
COUNTRY OF INFO--USSR

SOURCE--VOPROSY VIRUSOLOGII, 1970, NR 3, PP 308-312

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ADINOVIRUS, MONKEY, ANTIBODY, ANTIGEN, HEMAGGLUTININ

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAE--2000/1844

STEP NO--UR/0402/70/000/003/0308/0312

CIRC ACCESSION NO--AP0125455

UNCLASSIFIED

2/2 020

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125455

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SERA OF HEALTHY GREEN MONKEYS FROM ANIMAL HOUSES OF THE MOSCOW INSTITUTES WERE TESTED FOR ANTIBODY TO SOME ONCOGENIC AND NON ONCOGENIC ADENOVIRUSES OF MONKEYS IN NEUTRALIZATION TEST, HI TEST AND CFT. NEUTRALIZING ANTIBODY TO HIGHLY ONCOGENIC ADENOVIRUSES SV20 AND SA7(C8) WAS FOUND IN 16PERCENT OF THE MONKEYS, AND FOR ADENOVIRUSES SA7(C626) AND SA7(B105) IN 2-4PERCENT OF THE MONKEYS. ANTIHEMAGGLUTININS FOR SV23(M2) AND SV32(M3) ADENOVIRUSES WERE FOUND IN 26-28PERCENT, AND FOR SV15(M4), SV37 AND SA7(B105) ADENOVIRUSES IN 10, 15 AND 6PERCENT OF MONKEYS, RESPECTIVELY. ONE MONKEY CAN POSSESS ANTIBODIES IN TWO, THREE, LESS FREQUENTLY FOUR ADENOVIRUSES. COMPLEMENT FIXING ANTIBODY FOR ADENO GROUP SPECIFIC ANTIGEN WAS FOUND IN 16PERCENT OF THE MONKEYS. THESE DATA INDICATE WIDESPREAD DISTRIBUTION OF ONCOGENIC AND NONONCOGENIC VIRUSES IN GREEN MONKEYS. FACILITY: GOSUDARSTVENNYY KONTROL'NYY INSTITUT MEDITSINSKIKH BIOLOGICHESKIKH PREPA4ATGV IMENI L. A. TARASEVICH, MOSKVA.

UNCLASSIFIED

1/2 022 UNCLASSIFIED PROCESSING DATE--30OCT70  
TITLE--A HEMAGGLUTINATING ADENO ASSOCIATED SIMIAN VIRUS -U-  
AUTHOR--(05)--KRAVCHENKO, A.T., OMELCHENKO, T.N., DODONOVA, N.N.,  
KHETAGUROVA, A.K., ALTSHEYN, A.D.  
COUNTRY OF INFO--USSR  
SOURCE--VOPROSY VIRUSOLOGII, 1970, NR 3, PP 301-308  
DATE PUBLISHED-----70  
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES  
TOPIC TAGS--ADENOVIRUS, HEMAGGLUTINATION, ANTIBODY, MONKEY  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--2000/1469 STEP NO--UR/0402/70/000/003/0301/0308  
CIRC ACCESSION NO--AP0125097  
UNCLASSIFIED

USSR

UDC: 616-006.092.9-097.3

BABAKOVA, S.V., DODONOVA, N.N., TSETLIN, YE.M., GORODILOVA, V.V., AGEYENKO, A.I., and ALTSHEYN, A.D., Laboratory of Virology Moscow Scientific Research Institute of Oncology imeni P. A. Herzen and Laboratory of Enterovirus and Adenovirus Preparations, State Control Institute of Medical Biological Preparations imeni L. A. Tarasevich.

"Induction of Specific Antitumor Immunity in Hamsters with Green Monkey Adenovirus SA7(C8)."

Leningrad, Voprosy Oncologii, Vol 16, No 3, 1970, pp 40-46.

Abstract: Strain SA7(C8) of green monkey adenovirus, highly oncogenic for hamsters, and its large-plaque and small-plaque variants, can induce specific antitumor immunity in adult hamsters. Large-plaque and small-plaque variants of virus SA7(C8) do not differ in their capacity to induce antitumor immunity. A high dose of virus SA7(C8), more than  $10^5$  TCD<sub>50</sub>, is required to induce antitumor immunity. Immunity developed during the first week after inoculation of the virus. Cells of transplanted tumor lines regularly contain specific transplantation antigen. In cells of primary tumors induced by adenovirus SA7(C8), transplantation antigen could be found in only some cases.

1/1

2/2 022

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125097

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT

CIA-RDP86-00513R002200710001-8"

ADENOVIRUS (AAV) WAS RECOVERED FROM A STRAIN OF SIMIAN ADENOVIRUS SV15. ITS MORPHOLOGY AND CAPACITY TO BE ACTIVATED BY DIFFERENT SIMIAN ADENOVIRUSES WAS STUDIED. HIGHLY ONCOGENIC SIMIAN ADENOVIRUSES SV20 AND SA7(C8) DID NOT ACTIVATE THE STRAINS OF AAV UNDER STUDY, UNLIKE 14 OTHER SEROTYPES OF SIMIAN ADENOVIRUSES. A METHOD FOR TITRATION OF THE INFECTIOUS ACTIVITY OF AAV WAS DEVELOPED. FORMATION OF AAV HEMAGGLUTININS WAS SHOWN TO BE ONLY PARTIALLY INHIBITED BY 5,10DD,DEOXYURIDIN AND ALMOST COMPLETELY INHIBITED BY 5,FLUCRO,2,DEOXYURIDINE. PROPERTIES OF HEMAGGLUTININS AND CONDITIONS FOR PERFORMING HA TEST AND HI TEST WITH AAV WERE STUDIED, AS WELL AS PROPERTIES OF HEMAGGLUTINATION INHIBITORS IN MONKEY SERA. SEVENTY FOUR PER CENT OF GREEN MONKEYS IMPORTED TO MOSCOW ANIMAL HOUSES WERE SHOWN TO HAVE ANTIBODY FOR THE HEMAGGLUTINATING AAV STRAIN. NO ANTIBODY FOR AAV WAS FOUND IN HUMAN SERA. FACILITY: GOSUDARSTVENNYY KONTROLYNYY INSTITUT MEDITSINSKIKH. FACILITY: BIOLOGICHESKIKH PREPARATOV IMENI L. A. TARASEVICH, INSTITUT EPIDEMIOLOGII I MIKROBIOLOGII IMENI N. F. GAMALEI, MOSKVA.

UNCLASSIFIED



Oncology

USSR

UDC 616.988.6.092.4

AL'TSHTEYN, A. D., TSETLIN, YE. M., DODONOVA, N. N., SARYCHEVA, O. F., LEVENBUK, I. S., and CHIGIRINSKIY, A. YE., State Control Institute of Biomedical Preparations imeni L. A. Tarasevich

"Tumor Formation in Cells Transformed in vitro by SV40 Virus"

Leningrad, Voprosy Onkologii, No 1, 1970, pp 63-69

Abstract: Mouse and rat embryonic cells transformed by SV40 virus did not form tumors in isologous animals, a phenomenon unrelated to the inability of these cells to produce tumors in vivo. Hamster embryonic and kidney cells readily induced continuous malignant growth in vivo. The fibroblast-like embryonic cells gave rise to sarcomas, while the kidney epithelioid cells induced carcinosarcomas and adenocarcinomas. The hamster tumor cells that developed after the inoculation of transformed hamster cells were readily passaged in vivo and vitro, where they retained the structure of the original cells. The immunofluorescence method revealed changes in the distribution of T-antigen after the transformed kidney cells were passaged in hamsters. There is a clear relationship between the sensitivity

1/2

USSR

AL'TSHTEYN, A. D., et al., Leningrad, Voprosy Onkologii, No 1, 1970,  
pp 63-69

of the hamster to the oncogenic action of SV40 virus and the ability  
of the transformed cells of this species to induce tumors in iso-  
or homologous animals.

2/2

- 32 -

Acc. Nr:

APO045502

Abstracting Service:  
CHEMICAL ABST.

Ref. Code:

4-70 UR0051

84610w Excitation of the luminescence of benzene derivatives by vacuum ultraviolet radiation. Vinogradov, I. P., Dodonova, N. Ya. (USSR). *Opt. Spektrosk.* 1970, 28(1), 170-2 (Russ). The luminescence of  $C_6H_6$  and its derivs. have been excited with uv radiation of 160, and, in some cases, 120 nm by using a H lamp and a vacuum monochromator. The luminophors were sublimed as thin films on liq.-N-cooled aluminized glass substrates prior to irradiation. The spectra of  $C_6H_6$ , PhMe and diphenylmethane have a band at  $\sim 300$  nm. All spectra except that of  $C_6H_6$  have a clearly defined structure in the 400-500-nm region and have identical intensity distribution. This band appears immediately after the light source is turned on.

Boris H. Tytell

REEL/FRAME  
19780468

USSR

UDC 620.17:669.14.018.298

DOGADAYEVA, V. A., GULYAYEV, A. P., ZIKEYEV, V. N., and FILIPPICHEVA, M. M.,  
Central Scientific Research Institute of Ferrous Metallurgy

"The Properties of 18Kh2N4VA Steel Made by Various Methods"

Moscow, Metallovedeniye i Termicheskaya Obrabotka Metallov, No 10, 1970,  
pp 2-5

Abstract: This work presents a study of the properties of 18Kh2N4VA steel, melted in an open induction furnace with magnesite lining and after vacuum arc and cathode ray remelting. The vacuum arc remelting was performed on metal made by the open induction method, while cathode ray remelting was performed on metal produced in a vacuum induction furnace. The steel produced by vacuum induction melting with subsequent cathode ray remelting had reduced contents of oxygen and nitrogen, sulfur, tin, arsenic, antimony, and nonmetallic inclusions. The vacuum-arc remelted steel contained lower contents of oxide and sulphide nonmetallic inclusions than ordinary steel. The pure steels have a higher tendency toward grain growth, increasing with higher temperatures. The impact toughness of the vacuum induction + cathode ray remelted steel is approximately 2-3 times higher, although the  
1/2

USSR

DOGADAYEVA, V. A., et al, Metallovedeniye i Termicheskaya Obrabotka  
Metallov, No 10, 1970, pp 2-5

cold brittleness threshold is the same for both types of steel. The increase in impact toughness upon remelting results from an increase in the work of crack development.

2/2

- 46 -

1/2 022 UNCLASSIFIED PROCESSING DATE--11SEP70.  
TITLE--EFFECT OF STRUCTURE AND MELTING PRACTICE ON THE TOUGHNESS OF 17GS  
STEEL -U-  
AUTHOR--DOGADAYEVA, V.A., GEORGIYEV, M.N.  
COUNTRY OF INFO--USSR  
SOURCE--STAL' 1970, 30(1), 69-71  
DATE PUBLISHED-----70  
  
SUBJECT AREAS--MATERIALS  
  
TOPIC TAGS--MANGANESE STEEL, SILICON STEEL, METAL MELTING, TOUGHNESS,  
MECHANICAL PROPERTY, METAL CRACKING, RARE EARTH METAL, METAL HEAT  
TREATMENT, ALLOY DESIGNATION, METALLURGIC SLAG/(U)17GS MANGANESE STEEL  
  
CONTROL MARKING--NO RESTRICTIONS  
  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--1987/0156 STEP NO--UR/0133/70/030/001/0069/0071  
CIRC ACCESSION NO--AP0103835  
UNCLASSIFIED

2/2 022

UNCLASSIFIED

PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0103835

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. HEATS CONTG. C 0.17-0.22, SI 0.43-0.60, MN 1.17-1.39, NI 0.06-0.36, CR 0.12PERCENT MAX. WERE TESTED FOR MECH. PROPERTIES AT MINUS 100 TO 100DEGREES IN THE HOT ROLLED, NORMALIZED, AND QUENCHED AND TEMPERED STATE, THERMAL TREATMENT FOLLOWING IN CERTAIN CASES THE TREATMENT OF STEEL WITH SLAG IN A LADLE OR AFTER ADDN. OF RARE EARTH METALS. QUENCHING AND DRAWING AT 600DEGREES RESULTED IN HIGHEST MECH. PROPERTIES IN THE WHOLE RANGE OF TEMP. ALLOYING OR SLAG TREATMENT DID NOT IMPROVE THE RESULTS, THOUGH THE LATTER GREATLY INCREASED THE ENERGY OF INCIPIENT CRACK FORMATION.

UNCLASSIFIED

USSR

UDC 547.341

DOGADINA, A. V., IONIN, B. I., and PETROV, A. A., Leningrad Technological  
Institute Imeni Lensovet

"Reaction of Phosphorus Pentachloride With 1,3-Enynes"

Leningrad, Zhurnal Obshchey Khimii, Vol 42 (104), No 9, Sep 72, pp 1919-1925

Abstract: Reaction of phosphorus pentachloride with 1,3-enynes is accompanied by addition of hydrogen chloride, yielding 2,4-dichloro-2-alkenylphosphonic acid dichlorides which upon dehydrochlorination with triethylamine produce 2-chloro-1,3-butadienyl derivatives with the chlorine atom and the phosphorus containing group trans to each other. The structures of individual products were derived from PMR and NMR spectroscopical data.

1/1



USSR

UDC 547.341

DOGADINA, A. V., NECHAYEV, YU. D., IONIN, B. I., and PETROV, A. A., Leningrad Technological Institute imeni Lensovet

"NMR Spectra and Structure of  $\alpha$ -Chlorostyrene- $\beta$ -phosphonate Derivatives"

Leningrad, Zhurnal Obshchey Khimii, Vol 41, No 8, Aug 71, pp 1662-1668

Abstract: The addition of phosphorus pentachloride to phenylacetylene,  $\alpha$ -chlorostyrene, acetophenone and  $\alpha$ -bromostyrene gives 2-phenyl-2-chlorovinylphosphonic acid dichloride (I). The purpose of the present article was to establish the geometric configuration of I and a series of derivatives obtained from it by comparing parameters of the NMR spectra for these compounds with data for other styrylphosphonic derivatives whose structure was previously established by the authors. It was found that this reaction leads to the formation of products with a cis arrangement of chlorine and the phosphorus-containing group.

1/1

- 44 -

USSR

DOHADINA

DOHADINA, T. V., Chair of Lower Plants Kharkov State University

"Concerning the Utilization of Algae for Purification of Waste Waters Containing Petroleum Products"

Kiev, Ukrainskiy Botanicheskiy Zhurnal, Vol 27, No 3, May/Jun 70, pp 310-313

Abstract: Experiments were conducted to determine the possibility of utilizing mass cultures of algae for the additional purification of petroleum-containing waste waters after passage through petroleum filters, and to find the concentration of petroleum products in which algae can survive. Purified cultures of *Chlorella vulgaris* Beyer and *Scenedesmus obliquus* (Turp.) Kutz were used. Waste waters were obtained from the Kharkov tractor plant and contained petroleum products used for fabrication of tractor parts. Experiments were carried out in Erlenmeyer flasks illuminated 12 hours a day with a light source of 4,000-6,000 foot-candles. It was established that these algae survive and develop normally in concentrations of petroleum products up to 40 grams a liter. It was also found that waste waters containing petroleum products are purified 95-100 percent by inoculation with mass cultures of algae.

1/1

- 67 -

UNCLASSIFIED

PROCESSING DATE--300CT70

TITLE--VULCANIZATION OF RUBBERS WITH SORBIC ACID SALTS -U-

AUTHOR--(05)--ZAKHAROVA, YE.S., MIKHLIN, V.E., DONTSOV, A.A., MARKOV, V.V.,  
DUGADKIN, B.A.

COUNTRY OF INFO--USSR

SOURCE--KAUCH. REZINA, 1970, 29(3), 46

DATE PUBLISHED--70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--VULCANIZATION, PEROXIDE, ORGANOCALCIUM COMPOUND, ORGANONICKEL  
COMPOUND, STYRENE, SYNTHETIC RUBBER, VULCANIZATE/(U)SKS30ARK STYRENE  
RUBBER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/0833

STEP NO--UR/0138/70/029/003/0046/0046

CIRC ACCESSION NO--AP0124500

UNCLASSIFIED

2/2 017

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC. ACCESSION NO--AP0124500

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SKS 30 ARK RUBBER WAS VULCANIZED  
IN THE PRESENCE OF 10 PARTS (MECH:CHCH:CHCO SUB2) SUB2 CA OR  
(MECH:CHCH:CHCO SUB2) SUB2 NI AND VARIOUS PEROXIDES. THE VULCANIZATES  
WITH SUPERIOR PHYSIOMECH. PROPERTIES WERE OBTAINED. FACILITY:  
MOSK. INST. TONKOI KHIM. TEKHNOL. IM. LOMONOSOVA, MOSCOW, USSR.

UNCLASSIFIED

1/2 015 UNCLASSIFIED PROCESSING DATE--16OCT70  
TITLE--PREPARATION AND PROPERTIES OF AQUEOUS BUTYL RUBBER DISPERSIONS -U-  
AUTHOR--(05)-GUSTOVA, L.P., GELLER, T.L., MAZINA, G.R., SANDOMIRSKIY, D.M.,  
DOGAUKIN, B.A.  
COUNTRY OF INFO--USSR  
SOURCE--KOLLOIDNYY ZHURNAL, 1970, VOL 32, NR 2, PP 203-206  
DATE PUBLISHED-----70  
SUBJECT AREAS--MATERIALS  
TOPIC TAGS--BUTYL RUBBER, EMULSION, PARTICLE SIZE, POLYMER FILM  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--1993/0400 STEP NG--UR/0069/70/032/002/0203/0206  
CIRC ACCESSION NO--AP0113318  
UNCLASSIFIED

2/2 015

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0113318

ABSTRACT/EXTRACT--(U) GP-O- ABSTRACT. THE CONDITIONS OF PREPARATION OF BUTYL RUBBER DISPERSIONS BY MILLING HAVE BEEN STUDIED. GREATER RIGIDITY OF POLYMER OR ITS MIXTURES FAVORS DISPERSION. THE COLLOID CHEMICAL PROPERTIES OF DISPERSIONS PREPARED WITH VARIOUS EMULSIFIERS HAVE BEEN EXAMINED. THE SMALLEST PARTICLE SIZE WAS OBTAINED WHEN DISPROPORTIONATED ROSIN WAS USED AS EMULSIFIER. IT HAS BEEN PROVED POSSIBLE TO OBTAIN FILMS FROM BUTYL RUBBER DISPERSIONS. THE PROPERTIES OF THESE FILMS HAVE BEEN ASSESSED. DECREASE IN THE AMOUNT OF EMULSIFIER DURING DISPERSION OR DUE TO SETTLING OF DISPERSIONS SUBSTANTIALLY INCREASES THE FILM STRENGTH.

UNCLASSIFIED

Acc. Nr: **A/0036538**

Ref. Code: UR 0069

PRIMARY SOURCE: Kolloidnyy Zhurnal, 1970, Vol 32, Nr 1,  
PP 124 - 129

STUDY OF THE RADIATION CROSS-LINKING OF RUBBER IN  
SYNTHETIC LATICES AND ARTIFICIAL AQUEOUS DISPERSIONS

El'kina, I. A.; Sandomirskiy, D. M.; Dogadkin, B. A.

Summary

The radiolysis of synthetic rubber latices has been studied. The rate of radiation cross-linking of polymer in a latex is much greater than in the bulk. The polymer cross-linking efficiency in a latex depends on the polymer hydrocarbon structure and on the colloid-chemical nature of latices. Stabilizers with a cyclic structure and small globules decrease the cross-linking rate. The radiolysis does not change essentially the colloid-chemical properties of latices.

*D.H.*

*1/1*

REEL/FRA  
19721386

*7*

Acc. Nr.

AP0048830

Abstracting Service:  
CHEMICAL ABST.

Ref. Code

UR 0459

91289b Vulcanization of rubber with dimethacrylic esters of glycols having molecular chains of different lengths. Novkova, L. A.; Tarasova, Z. N.; Dogadkin, B. A. (Mosk. Inst. Tonkoi Khim. Tekhnol. im. Lomonosova, Moscow, USSR). *Vysokomol. Soedin., Ser. A* 1970, 12(1), 63-8 (Russ). Butadiene-styrene rubber (Uoprene 1500) (I) was vulcanized with diethylene glycol dimethacrylate (II), triethylene glycol dimethacrylate (III), butylene glycol dimethacrylate, and decamethylene glycol dimethacrylate in the presence of dicumyl peroxide (IV) at 130 and 153°. The reactivity of dimethacrylates (contg. no IV) to initiate crosslinking was inversely proportional to chain length and flexibility. The amt. of dimethacrylate added to I was ~70-80%. The reactivities of ethylene glycol dimethacrylate, II, and III as well as the no. of the crosslinks formed following vulcanization were essentially identical. The tensile strength of I vulcanizates was unaffected by the chain length of the crosslinking agent. A crosslinking mechanism was discussed. CKJR

REEL/FRAME  
19800597



172 030 UNCLASSIFIED PROCESSING DATE--16OCT70  
TITLE--STUDY OF THE PROPERTIES OF VULCANIZATES WITH CROSSLINKS OF  
DIFFERENT STRUCTURE -U-  
AUTHOR--(02)-DOGADKIN, B.A., ANFIMOV, B.N. D  
COUNTRY OF INFO--USSR  
SOURCE--KOLLOIDNYY ZHURNAL, 1970, VOL 32, NR 2, PP 207-212  
DATE PUBLISHED-----70  
SUBJECT AREAS--MATERIALS  
TOPIC TAGS--VULCANIZATE, POLYMER CROSSLINKING, BUTADIENE, PYRIDINE, CURING  
AGENT, BROMINATED ORGANIC COMPOUND, ORGANIC PEROXIDE, TENSILE STRENGTH,  
ELONGATION, FATIGUE STRENGTH  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAHE--1993/0401 STEP NO--UR/0069/70/032/002/0207/0212  
CIRC ACCESSION NO--AP0113319  
UNCLASSIFIED

2/2 030

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0113319

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. STUDIES HAVE BEEN MADE ON MECHANICAL PROPERTIES OF VULCANIZATES WITH CROSS LINKS OF VARYING LENGTH, OBTAINED BY CURING OF BUTADIENE COPOLYMER CONTAINING 15PERCENT METHYL VINYL PYRIDINE WITH DICUMYL PEROXIDE (DCP), METHYLENE BROMIDE (MB), 1,2,DIBROMOETHANE (DBE), 1,3,DIBROMOPROPANE (DBP), 1,4,DIBROMOBUTANE (DBB), 1,5,DIBROMOPENTANE (DBPN) AND 1,10,DIBROMODECANE (DBD). WITH REFERENCE TO THEIR TENSILE STRENGTH, ELONGATION AND FATIGUE RESISTANCE UNDER REPEATED ELONGATION, THESE VULCANIZATES FORM THE SERIES: DCP SMALLER THAN MB SMALLER THAN DBE LARGER THAN DBP LARGER THAN DBPN LARGER THAN DBD. FATIGUE RESISTANCE UPON TWISTING WITH BENDING DOES NOT DEPEND ON THE LENGTH OF CROSS LINKS AND IS DETERMINED BY INTERNAL FRICTION. THE LENGTH OF CROSS LINKS DOES NOT AFFECT THE TEMPERATURE OF THE ELASTICITY MINIMUM AND ELASTICITY AT POSITIVE TEMPERATURES AS WELL AS THE ABRASION RESISTANCE OF VULCANIZATES.

UNCLASSIFIED

1/2 009 UNCLASSIFIED PROCESSING DATE--16OCT70  
TITLE--EFFECT OF THE TRANSITION LAYER AT THE RUBBER RUBBER INTERFACE ON  
THE COHESIVE ENERGY DENSITY AND ADHESION BETWEEN LAYERS OF VULCANIZATES  
AUTHOR--(04)--OREKHOV, S.V., ZAKHAROV, N.D., KULEZNEV, V.N., OSADKIN, B.A.  
COUNTRY OF INFO--USSR  
SOURCE--KOLLOIDNYY ZHURNAL, 1970, VOL 32, NR 2, PP 245-250  
DATE PUBLISHED-----70  
SUBJECT AREAS--MATERIALS  
TOPIC TAGS--VULCANIZATE, ADHESION, ELASTOMER COHESION  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--1993/0397 STEP NO--UR/0069/70/032/002/0245/0250  
CIRC ACCESSION NO--AP0113315  
UNCLASSIFIED

2/2 009

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0113315

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ADHESION BETWEEN RUBBERS HAS BEEN STUDIED FOR A NUMBER OF RUBBERS. ADHESION BETWEEN PLIED UP RUBBERS DEPENDS ON THE RATIO OF THEIR MOLAR COHESIVE ENERGIES AND CAN SERVE AS A QUALITATIVE CHARACTERISTIC OF THE THICKNESS OF THE TRANSITION LAYER FORMED DURING BLENDING OR PLYING UP OF RUBBERS. THE ADHESION BETWEEN VULCANIZATE LAYERS OF PLIED UP RUBBERS HAS BEEN DETERMINED BY STATIC AND DYNAMIC METHODS. THE DYNAMIC TEST RESULTS ARE IN QUALITATIVE AGREEMENT WITH THE DATA ON ADHESION OF UNCURED POLYMERS AND CAN BE USED TO ASSESS THE EFFECT OF THE TRANSITION LAYER ON CU VULCANIZATION OF RUBBERS. THE RELATIONSHIP BETWEEN THE COHESIVE ENERGY DENSITY AND THE COMPONENTS RATIO, DETERMINED FOR A NUMBER OF BLENDS, DEPENDS ON THE TRANSITION LAYER THICKNESS AND ON THE DIFFERENCE IN COHESIVE ENERGIES OF THE BLENDED RUBBERS.

UNCLASSIFIED

1/2 012 UNCLASSIFIED PROCESSING DATE--13NOV70  
TITLE--VULCANIZATION OF UNSATURATED RUBBERS -U-  
AUTHOR--(04)-DOGADKIN, G.A., DONTSOV, A.A., LOBACHEVA, G.K., VERSHININA,  
N.M.  
COUNTRY OF INFO--USSR D  
SOURCE--U.S.S.R. 267,062  
REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,  
DATE PUBLISHED--01APR70  
SUBJECT AREAS--MATERIALS  
TOPIC TAGS--VULCANIZATION, RUBBER, PYRIDINE, IODINATED ORGANIC COMPOUND,  
PATENT  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--3002/1411 STEP NO--UK/0482/70/000/000/0000/0000  
CIRC ACCESSION NO--AA0128810  
UNCLASSIFIED

2/2 012 UNCLASSIFIED PROCESSING DATE--13NOV70  
CIRC ACCESSION NO--AA0128810  
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A VULCANIZING AGENT, SUCH AS  
ALLYLPYRIDINIUM IODIDE, WAS USED TO VULCANIZE UNSATD. RUBBERS IN THE  
PRESENCE OF RADICAL INITIATORS. FACILITY: LOMONOSOV, M. V.,  
INSTITUTE OF FINE CHEMICAL TECHNOLOGY, MOSCOW.

UNCLASSIFIED

1/2 021 UNCLASSIFIED PROCESSING DATE--30OCT70  
TITLE--EFFECT OF MICROGEL ON THE MECHANICAL PROPERTIES OF CIS,POLYISOPRENE  
AND BUTADIENE,STYRENE RUBBERS -U-  
AUTHOR-(04)-KULEZNEV, V.N., ELKINA, I.A., VANKOVA, L.N., DOGADKIN, B.A.  
COUNTRY OF INFO--USSR  
SOURCE--KOLLOIDNYY ZHURNAL, 1970, VOL 32, NR 3, PP 381-387  
DATE PUBLISHED-----70  
SUBJECT AREAS--MATERIALS  
TOPIC TAGS--GEL, POLYMER RHEOLOGY, POLYISOPRENE, BUTADIENE STYRENE RESIN,  
VULCANIZATE, MECHANICAL STRENGTH, RUBBER  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--2000/1591 STEP NO--UR/0069/70/032/003/0381/0387  
CIRC ACCESSION NO--AP0125213  
UNCLASSIFIED

2/2 021 UNCLASSIFIED PROCESSING DATE--30OCT70  
CIRC ACCESSION NO--AP0125213  
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT OF MICROGEL ON THE  
RHEOLOGICAL PROPERTIES OF CIS,POLYISOPRENE AND BUTADIENE,SYTRENE  
RUBBERS HAS BEEN STUDIED. MICROGEL ENHANCES THE EFFECTIVE VISCOSITY OF  
MIXES, REDUCES THEIR SHRINKAGE ON DISCHARGE FROM THE VISCOMETER  
CAPILLARY, INCREASES THE CRITICAL STRESS OF ELASTIC TURBULENCE AND HAS  
LITTLE EFFECT ON THE STRENGTH PROPERTIES OF VULCANIZATES, PROVIDED THE  
VULCANIZING SYSTEM IS PROPERLY CHOSEN. FACILITY: INSTITUT  
TONKOY KHIMICHESKOY TEKHNologii IM. M. V. LOMONOSOVA MOSCOW.

UNCLASSIFIED



1/2 023 UNCLASSIFIED PROCESSING DATE--23OCT70  
TITLE--NATURE OF CROSSLINKS FORMED DURING THE VULCANIZATION OF RUBBERS BY  
A THIOUREA HEXACHLOROETHANE COMPLEX IN THE PRESENCE OF SULFUR -U-  
AUTHOR-(03)-GLUSHKOV, V.V., SHERSHNEV, V.A., DOGADKIN, E.A.  
COUNTRY OF INFO--USSR  
SOURCE--KAUCH. REZINA 1970, 29(3), 14-15  
DATE PUBLISHED-----70  
SUBJECT AREAS--MATERIALS  
TOPIC TAGS--POLYMER CROSSLINKING, VULCANIZATION, THIOUREA, CHLOROETHANE,  
COMPLEX COMPOUND, SULFUR, SYNTHETIC RUBBER, STYRENE, STRESS  
RELAXATION/(U)SKMS30ARK STYRENE RUBBER  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--1997/0455 STEP NO--UR/0138/70/029/003/0014/0015  
CIRC ACCESSION NO--AP0119391  
UNCLASSIFIED

2/2 023

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIPC ACCESSION NO--AP0119391

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ADDN. OF 2 WT. PARTS OF THE  
TITLE COMPLEX (I) AND 2 WT. PARTS S TO SYNTHETIC RUBBER SKMS-30ARK  
DECREASED ITS ELONGATION AT BREAK TO 55PERCENT AND ITS FLEX RESISTANCE  
TO 9 TIMES 10 PRIME4 CYCLES AS COMPARED WITH 100PERCENT AND 11 TIMES 10  
PRIME4 CYCLES FOR THIS RUBBER VULCANIZED WITH S 2 AND DIPHENYLGUANIDINE  
2 PARTS. HOWEVER, I CONSIDERABLY REDUCED THE DYNAMIC STRESS RELAXATION  
OF THIS RUBBER. FACILITY: MOSK. INST. TONKOL. IM. LOMONOSOVA,  
MOSCOW, USSR.

UNCLASSIFIED

1/2 020 UNCLASSIFIED PROCESSING DATE--23OCT70  
TITLE--RESEARCH CONDUCTED IN THE ELASTOMER PROBLEM LABORATORY IN THE  
CHEMISTRY AND PHYSICS OF POLYMERS DEPARTMENT OF THE M. V. LOMONOSOV  
AUTHOR--DOGADKIN, B.A.

COUNTRY OF INFO--USSR

SOURCE--KAUCH. REZINA 1970, 29(4), 35-8

DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--ELASTOMER, POLYMER RHEOLOGY, POLYMER PHYSICAL PROPERTY,  
RUBBER, VULCANIZATE, VULCANIZATION, SCIENTIFIC R AND D

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/0533

STEP NO--UR/0138/70/029/004/0035/0038

CIRC ACCESSION NO--AP0119452

UNCLASSIFIED

2/2 020

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0119452

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A REVIEW WITH 19 REFS. TOPICS  
INCLUDE CHEM. REACTIOS OF RUBBERS, CONNECTIONS BETWEEN STRUCTURE AND  
PHYSICOMECH. PROPERTIES OF VULCANIZATES, NEW VULCANIZATION SYSTEMS AND  
MODIFICATIONS, SYNTHESIS OF RESINS WITH GIVEN PROPERTIES, AND PROPERTIES  
OF MIXTS. OF INCOMPATIBLE ELASTOMERS. FACILITY: MOSK. INST.  
TONKUI KHIM. TEKHNL. IM. LOMONOSOVA, MOSCOW, USSR.

UNCLASSIFIED

1/2 011 UNCLASSIFIED PROCESSING DATE--23OCT70  
TITLE--INTERACTION OF POLYISOPRENE WITH D,MONOPERPHTHALIC ACID -U-  
AUTHOR-(03)-DOGADKIN, B.A., TUTORSKIY, I.A., KHODZHAYEVA, I.D.  
COUNTRY OF INFO--USSR *D*  
SOURCE--KOLLOIDNYY ZHURNAL, 1970, VOL 32, NR 3, PP 315-320  
DATE PUBLISHED-----70  
  
SUBJECT AREAS--CHEMISTRY  
  
TOPIC TAGS--ISOPRENE, SQUALENE, NATURAL RUBBER, PHTHALIC ACID, CHEMICAL  
REACTION  
  
CONTROL MARKING--NO RESTRICTIONS  
  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--1998/0190 STEP NO--UR/0069/70/032/003/0315/0320  
  
CIRC ACCESSION NO--AP0120888  
UNCLASSIFIED

2/2 011

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0120888

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE KINETICS OF THE REACTION OF ORTHO MEONPERPHTHALIC ACID (MPPA) WITH SQUALENE AND NATURAL RUBBER HAVE BEEN STUDIED IN THE TEMPERATURE RANGE FROM NEGATIVE 25 TO 20 DEGREES AT VARYING CONCENTRATIONS AND RATIOS OF REACTANTS. THE REACTION RATE IS DESCRIBED BY A SECOND ORDER EQUATION. THE RATE CONSTANTS AND ACTIVATION ENERGY HAVE BEEN CALCULATED. THE REACTION WITH SQUALENE PROCEEDS IN TWO STEPS CORRESPONDING TO THE INTERACTION WITH THE PERACID OF TERMINAL AND INTERNAL DOUBLE BONDS. THE KINETIC CURVES FOR THE REACTION OF MPPA WITH RUBBER IN A BINARY MIXTURE CCL SUB 4 DIOXANE ARE ANOMALOUS.  
FACILITY: MGSKOVSKIY INST. TONKOY KHIMICHESKOY TEKHNologii IM. M. V. LOMONOVOVA.

UNCLASSIFIED

USSR

UDC 547.341

DOGADKINA, A. V., MINGALEVA, K. S., IONIN, B. I., and PETROV, A. A., Leningrad Technological Institute imeni Lensovet

"Addition of Phosphorus Pentachloride to Acetylenes"

Leningrad, Zhurnal Obshchey Khimii, Vol 42 (104), Vyp 10, 1972, pp 2186-2193

Abstract: Formation of acid chlorides, esters, and phosphine oxides during the reaction of  $\text{PCl}_5$  with acetylenic hydrocarbons is described. Oxidative phosphorylation of acetylenic hydrocarbons is also presented for comparison. The reaction of  $\text{PCl}_5$  with tert-butylacetylene in benzene takes place at room temperature and after treatment with  $\text{SO}_2$  yields the acid dichloride of 3,3-dimethyl-2-chloro-1-Z-butyl-phosphonic acid, (I),  $\text{C}_6\text{H}_{10}\text{Cl}_3\text{OP}$ , b.p.  $110^\circ \text{C}$

(1 mm). Methylacetylene with  $\text{PCl}_5$  under identical reaction conditions yields the acid dichloride of 2-chloro-2-propenylphosphonic acid (II)  $\text{C}_3\text{H}_4\text{Cl}_3\text{OP}$ ,

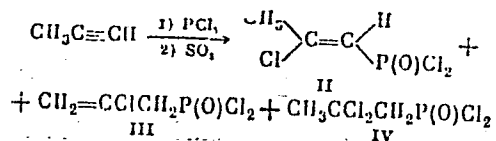
b.p.  $72-75^\circ$  (1 mm),  $d_4^{20}$  1.5014,  $n_D^{20}$  1.5120, as well as the allyl isomer (III) and the acid dichloride of 2,2-dichloropropylphosphonic acid (IV)

1/5

- 24 -

USSR

DOGADKINA, A. V., et al., Zhurnal Obshchey Khimii, Vol 42(104), Vyp 10, 1972, pp 2186-2193



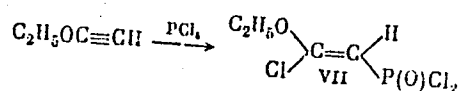
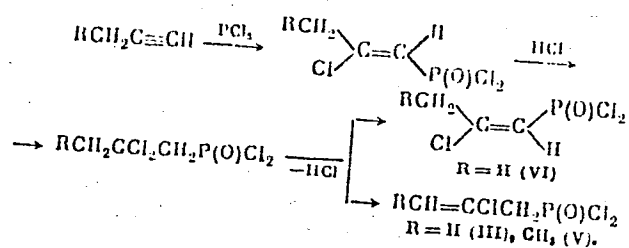
Reaction of  $\text{PCl}_5$  with ethylacetylene yields exclusively the acid dichloride of 2-chloro-2-butenylphosphonic acid (V),  $\text{C}_4\text{H}_6\text{Cl}_2\text{OP}$ , b.p.  $95^\circ\text{C}$  (1 mm),  $d_4^{20}$  1.4265,  $n_D^{20}$  1.5132. A noticeable amount of E-isomer (VI) was obtained in the reaction of  $\text{PCl}_5$  with methylacetylene. Ethoxyacetylene easily reacts with  $\text{PCl}_5$  by forming the acid dichloride of 2-chloro-2-ethoxy-2-vinylphosphonic acid (VII), b.p.  $82-83^\circ\text{C}$  (1 mm),  $d_4^{20}$  1.4630,  $n_D^{20}$  1.5140.

2/5



USSR

DOGADKINA, A. V., et al., Zhurnal Obshchey Khimii, Vol 42(104), Vyp 10, 1972, pp 21-86-2193

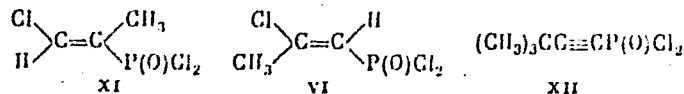
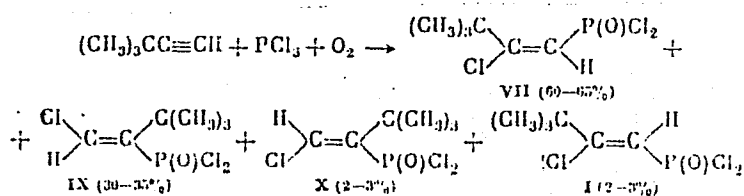


3/5

USSR

DOGADKINA, A. V., et al., Zhurnal Obshchey Khimii, Vol 42(104), Vyp 10, 1972, pp 2186-2193

Other acid dichlorides (VIII-XII) were prepared in the course of the following reactions:



4/5

USSR

DOGADKINA, A. V., et al., Zhurnal Obshchey Khimii, Vol 42(104), Vyp 10, 1972, pp 2186-2193

Reaction of the obtained acid dichlorides with ethanol in the presence of pyridine yields corresponding diethyl phosphonates. Some acid dichlorides (I-IV), (XII) react with ethylmagnesium bromide yielding 2-chloro-Z-alkenyl and alkynyl phosphine oxides. Properties of all prepared compounds along with their PMR and NMR are given.

5/5

- 26 -

USSR

UDC:621.039.59

NOVOSELOV, G. P., DOGAYEV, YU. D. and PEREVOZCHIKOV, S. A.

"Losses of Uranium and Plutonium from Steel During Thermal Opening of Fuel Elements"

Moscow, Atomnaya Energiya, Vol 36, No 1, Jan 74, pp 69-70

Abstract: The disassembly of highly active fuel assemblies of fast reactors, their opening and separation of steel from fuel are among the most difficult problems in the process of regeneration. The losses of nuclear fuel with the steel must be minimal, so as to allow long-term storage of the steel without additional treatment. This article calculates the rates and times of settling of uranium dioxide particles of various sizes in drops of liquid steel. The calculations indicate that only for particles 10  $\mu$  or less in diameter will the settling time be over 1 minute. The calculations performed confirm the conclusion drawn earlier that the separation process can be successfully performed in the drop of steel, resulting in the production of steel ingots with less than 1% contamination with fuel and relatively low activity.

1/1

- 45 -

1/2 024 UNCLASSIFIED PROCESSING DATE--30OCT70  
TITLE--INTERACTION OF URANIUM AND ITS ALLOYS WITH ALKALI METAL FLUORIDES  
-U-  
AUTHOR--(03)-NOVOSELOV, G.P., KASHCHEYEV, I.N., DOGAYEV, YU.D.  
COUNTRY OF INFO--USSR  
SOURCE--AT. ENERG. 1970, 28(11), 48  
DATE PUBLISHED-----70  
SUBJECT AREAS--CHEMISTRY  
TOPIC TAGS--URANIUM, CHEMICAL REACTION RATE, NICKEL, IRON, CALCIUM  
FLUORIDE, URANIUM COMPOUND, LITHIUM FLUORIDE, POTASSIUM COMPOUND, SODIUM  
COMPOUND  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FKAME--1998/0487 STEP NO--UR/0089/70/028/001/0048/0048  
CIRC ACCESSION NO--AP0121161  
UNCLASSIFIED

2/2 024

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0121161

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. AT LESS THAN 1723DEGREESK, THE REACTION BETWEEN METALLIC U AND MOLTEN CAF SUB2 IS NEGLIGIBLE, AND CAF SUB2 MAY BE USED AS AN INERT SOLVENT FOR ALKALI METAL FLUORIDES IN THE CONVERSION OF U TO UF SUB4 BY REACTION WITH SUCH FLUORIDES. THUS, AT 1523DEGREESK, THE REACTION RATE BETWEEN U AND SUCH FLUORIDES INCREASES SHARPLY WITH INCREASING ALKALI METAL FLUORIDE CONC. C IN THE CAF SUB2, AND IN THE CASE OF C EQUALS 50 WT.PERCENT, THE RATE OF CONVERSION OF THE U IN LIF, NAF, AND KF SOLNS. IS 4 TIMES 10 NEGATIVE PRIME2, 6 TIMES 10 NEGATIVE PRIME2, AND 12 TIMES 20 NEGATIVE PRIME2 G-(CM PRIME2 MIN), RESP. THE REACTION BETWEEN SUCH FLUORIDE SOLNS. AND METALLIC NI OR FE IS NEGLIGIBLE.

UNCLASSIFIED

AA0052391-

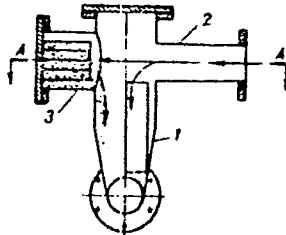
DOGIN

M. Kh.  
UR 0482

Soviet Inventions Illustrated, Section III Mechanical and General,  
Derwent, 2-70

243489

TURNING UNIT FOR PNEUMATIC CONVEYING LINE



designed to reduce wear, even when abrasive materials are being conveyed. The unit consists of vertical chamber 1, into the top, cylindrical section of which leads horizontal inlet nozzle 2. Directly opposite the inlet nozzle is nozzle 3, which is closed at one end and is provided with compartments for catching particles of material.

A horizontal outlet nozzle, which can be at an angle of 0-180° to the inlet nozzle, leads out of the lower, conical section of chamber 1. The gas-borne material is fed into chamber 1 from nozzle 2

$\frac{1}{2}$

19820993

18

AA0052391

and its progress is braked by the greater diameter of chamber 1 and impact in the compartments of nozzle 3. The particles of material drop into precipitation chamber 1 and are swept by the conveying gas out along the outlet pipe.  
25.7.64. as 913703/27-11, DOGIN, M. KH. Belorussian Inst. of Railway Engineers. (22.9.69) Bul.  
16/5.5.69. Class 8le, Int. Cl. B 65g.

*gk.*  
Belorusskiy Institut Inzhenerov Zheleznodorozhnogo Transporta

*2*  
*2*  
**19820994**



USSR

UDC 617-001.34

DOGLE, N. V., and MALINSKAYA, N. N., Institute of Labor Hygiene and Occupational Diseases, Academy of Medical Sciences USSR, Moscow

"Social and Hygienic Importance of Vibration Sickness and Ways of Preventing It"

Moscow, Gigiyena Truda i Professional'nyye Zabolevaniya, No 7, Jul 70, pp 8-11

Abstract: Vibration sickness is the third most important (18.8%) chronic occupational disease in the USSR. The highest incidence of the disease in 1968 was found in industrial plants of the nonferrous and ferrous metal industry, power and transportation machine building, coal production, and the automobile industry. The incidence of the disease in tractor and agricultural machinery plants was 1/4 that in the nonferrous industry. Almost 50% of those afflicted were temporarily unable to work. In some cases this figure was as high as 70-95%. Vasomotor disturbances are observed in the early stages of the disease and time off is prescribed. The disease remains a great problem from both the public health and economic standpoints. One of the reasons for its high incidence is the widespread use of high-frequency vibration equipment, which is often built in-house and of inferior quality. Physicians, physiologists, hygienists, and occupational pathologists are concentrating on the  
1/2

- 56 -

USSR

DOGLE, N. V. and MALINSKAYA, N. N., Gigiyena Truda i Professional'nyye Zabolevaniya, No 7, Jul 70, pp 8-11

development of preventive measures, such as periodic medical check-ups of personnel working with vibration equipment. Engineers and other technical specialists are developing improved vibration equipment.

2/2

1/2 023 UNCLASSIFIED PROCESSING DATE--16OCT70  
TITLE--THEORY OF ADIABATIC AND NONADIABATIC ELECTROCHEMICAL REACTIONS -U-  
AUTHOR--(03)-DOGONADZE, R.R., KUZNETSOV, A.M., VORDTYNTSEV, M.A.  
COUNTRY OF INFO--USSR  
SOURCE--J. ELECTROANAL. CHEM. INTERFACIAL ELECTROCHEM. 1970, 25(2),  
17A-19A  
DATE PUBLISHED-----70  
SUBJECT AREAS--CHEMISTRY  
TOPIC TAGS--ELECTRODE REACTION, CALCULATION, ELECTRON ENERGY, ADIABATIC  
PROCESS, ELECTROCHEMICAL REACTION, NONADIABATIC PROCESS  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRA--1995/1306 STEP NO--NE/0000/70/025/002/0017/0019  
CIRC ACCESSION NO--AP0116766  
UNCLASSIFIED

2/2 023

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0116766

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE PROBABILITY OF ADIABATIC AND NONADIABATIC ELECTRODE REACTIONS IS CALCD. BY TAKING INTO ACCOUNT THE MANY POTENTIAL ENERGY SURFACES (TERMS) IN THE INITIAL AND FINAL STATES, CORRESPONDING TO DIFFERENT POPULATIONS OF THE ELECTRON ENERGY LEVELS IN A METAL. THE TRANSITION PROBABILITY FOR EACH 2 TERMS IS DETD. MATH.

FACILITY: INST. ELECTROCHEM., MOSCOW, USSR.

UNCLASSIFIED

Glass and Ceramics

USSR

UDC 546.185'16:666.1

**D**  
GOLUBTSOV, L. A., KHALILEV, V. D., YEVSTROP'YEV, K. S.,  
DOLADUGINA, V. S., Leningrad Technological Institute Imeni  
Lensovet

"Light Transmission of Fluorophosphate Glasses as a Function  
of Synthesis Conditions"

Moscow, Neorganicheskiye Materialy, Vol 6, No 5, May 70,  
pp 924-927

Abstract: The authors studied the effect of the digestion con-  
ditions on the transparency and homogeneity of fluorophosphate  
glasses of the following composition (wt%):  $Al(PO_3)_3$ --30;  
 $BaF_2$ --60;  $CaF_2$ --10. This glass shows very high chemical sta-  
bility and comparatively low crystallization ability. It was  
determined that the presence of oxygen and water vapors in the  
gaseous medium above the alloy during digestion of fluorophos-  
phate glasses leads to considerably poorer transparency in the  
ultraviolet and infrared spectral regions, and to poorer homo-  
geneity. Homogeneous glasses with high transparency may only be  
1/1 obtained in an inert atmosphere.

USSR

UDC 634.0.312.719

SHTeyNERS, K. N., GOLDSHTeyNS, A. Ya., ROTsENS, K. A., DOLATSIS, Ya. A.,  
and RAYAVEYE, E. L., Institute of Wood Chemistry, Academy of Sciences  
Latvian SSR

"Deformation Characteristics of Birch Wood, Modified Chemically by Radiation,  
as a Function of Polymer Content"

Riga, Izvestiya Akademii Latviyskoy SSR, No 11(304), 1972, pp 35-41

Abstract: The basic components of the pliability tensor of polystyrene which has been modified chemically by radiation as a function of its concentration in birch wood were determined. The module of elasticity and the module of shear were also measured for three groups of samples: a control group, a group exposed to an integrated radiation dose of 14 mrad, and a group containing the chemically modified polystyrene. The components of interest were  $a_{1111}$ ,  $a_{2222}$ ,  $a_{1212}$ ,  $a_{1313}$ , and  $a_{2323}$ . The mathematical form of these is also given. The components  $a_{2222}$  and  $a_{2323}$  showed a greater dependence (a second order function) on the polystyrene concentration than the other three components, which had a first order dependence.

1/1

- 72 -

1/2 019 UNCLASSIFIED PROCESSING DATE--23OCT70  
TITLE--EVOKED POTENTIALS IN THE SENSORI MOTOR CORTEX OF DOGS IN THE COURSE  
OF DEFENSIVE INSTRUMENTAL CONDITIONING -U-  
AUTHOR--DOLBAKYAN, E.YE.

COUNTRY OF INFO--USSR

SOURCE--ZHURNAL VYSSHEY NERVNOY DEYATEL'NOSTI, 1970, VOL 20, NR 3, PP  
547-553  
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--CONDITIONED REFLEX, ELECTROPHYSIOLOGY, SENSORY PHYSIOLOGY,  
BIOPOTENTIAL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/1922

STEP NO--UR/0247/70/020/003/0547/0553

CIRC ACCESSION NO--AP0120572

UNCLASSIFIED

2/2 019

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0120572

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. FOLLOWING THE ELABORATION OF A PRIMARY DEFENSIVE INSTRUMENTAL REFLEX (ESCAPE REACTION) IN DOGS, SIGNIFICANT CHANGES IN THE PARAMETERS OF EVOKED POTENTIALS WERE RECORDED IN THE SENSORY AND MOTOR REPRESENTATIONS OF THE RESPECTIVE EXTREMITY. AT THE SENSORY POINT ALL THE NEGATIVE COMPONENTS, BOTH EARLY AND LATE, INCREASED, AND AN ADDITIONAL LATE NEGATIVE OSCILLATION APPEARED IN THREE OF THE SEVEN DOGS. THE EARLY AND LATE POSITIVE WAVES DIMINISHED. AT THE MOTOR POINTS, ON THE CONTRARY, THE EARLY AND LATE NEGATIVE WAVES DECREASED. THE EARLY POSITIVE OSCILLATION WERE INTENSIFIED. LATE POSITIVE WAVES IN SOME DOGS LIKEWISE INCREASED, WHILE IN OTHER, THEY DECREASED. THE CHANGES WERE OBSERVED DURING THE WHOLE PERIOD OF INVESTIGATION OF A STABLE PRIMARY REFLEX (USUALLY FOR THREE TO FOUR MONTHS). IT IS ASSUMED THAT THE SENSORY CORTEX PERFORMS AN ORGANIZING FUNCTION IN THE FORMATION OF A PRIMARY INSTRUMENTAL REFLEX. FACILITY: INSTITUTE OF HIGHER NERVOUS ACTIVITY AND NEUROPHYSIOLOGY, USSR ACADEMY OF SCIENCES, MOSCOW.

UNCLASSIFIED



Microbiology

USSR

UDC 616.981.553-036.21(476)

POLESHKO, D. V., ~~DOLBET, M. I.~~, NOVIKOV, P. L., and LENNIKOVA, G. D., Chair of Infectious Diseases, Minsk Medical Institute, and Minsk Municipal Hospital for Infectious Diseases

"Clinical and Epidemiological Data on Botulism in Belorussia"

Moscow, Sovetskaya Meditsina, Vol 33, No 7, Jul 70. pp 137-139

Abstract: During the last 4 years, 30 persons suffering from botulism have been treated at the Minsk Municipal Hospital; 26 of these patients had become ill after ingestion of domestically prepared mushrooms. All of the cases were caused by Type B Clostridium botulinus. The most pronounced symptoms were ophthalmic and pharyngeal paresis, with ensuing disturbed vision and severe dryness of the mouth. Gastrointestinal disorders developed in 17 cases. Cardiac complications were observed in patients suffering from the moderate and severe forms of the disease. No significant hematological changes were found. Administration of antitoxin sera and penicillin was effective. To prevent botulism, mushrooms must be thoroughly cleaned to remove soil particles. They should also be properly sterilized. For marinated stocks, adequate amounts of preservatives must be added.

1/1

USSR

UDC 502.7(023)

KOSTYUKEVICH, N. I., ShKLYAR, A. Kh., and DOLBIK, M. S. (Editors)

Okhrana prirody (Nature Conservation), Minsk, Izdatel'stvo Vysheyschaya shkola, 1972, 468 pp

	Contents	Page
FOREWORD...		3
INTRODUCTION...		6
Leninist Principles of Nature Conservation...		6
Organization of Nature Conservation in the Belorussian SSR...		21
Nature Conservation and Economics...		28
Potential Resources of the Earth and of Landscapes...		45
Preserves of Belorussia...		60
Game Reserves of Belorussia ...		78
Nature Conservation and Health...		83
Propagandization of Knowledge Concerning Nature and Nature Conservation...		99
MINERAL AND SOIL CONSERVATION...		112
Minerals of Belorussia and Their Use...		112
Soil Covering of Belorussia...		122
Eroded Soils, Their Use and Conservation...		138
WATER AND AIR CONSERVATION...		153

1/3

- 105 -

USSR

KOSTYUKEVICH, N. I., SHKLYAR, A. Kh and DOKBIK, M. S., Izdatel'stvo Vysheyschaya shkola, 1972, 468 pp

Water Resources, Their Use and Conservation...	153
Belorussia's Underground Waters, Their Use and Conservation...	171
Belorussia's Climatic Resources and Their Rational Use...	186
The Atmosphere and the Prevention of Air Pollution...	207
CONSERVATION OF FLORA...	227
The Forest in Nature and in the Life of Man...	227
The Forests of Belorussia and Their Role in Nature Conservation...	244
Meadows...	269
Swamps...	276
Land and Forest Reclamation...	286
Protected Plants...	298
Protection of Plants Against Pests and Diseases...	307
Protection of Natural Monuments...	327
Parks of Belorussia...	336
CONSERVATION OF FAUNA...	352
Protection of Mammals...	352
History of Bison in the Belovezhskii Virgin Forest...	367
Protection of Bats...	367
Protection of Birds...	378

2/3

USSR

KOSTYUKEVICH, N. I., ShKLYAR, A. Kh and DOKBIK, M. S., Izdatel'stvo Vysheysheya  
shkola, 1972, 468 pp

The Organization of Rational Fisheries -- The Basic Means of Pro-  
tecting Fish Resources...

Hunting in Belorussia...

Useful Insects...

APPENDICES...

409

432

438

452

3/3

- 106 -

USSR

UDC: 511.444.2+548.1

DELONE, B. N., Corresponding Member of the Academy of Sciences of the USSR,  
GALIULIN, R. V., DOLBILIN, N. P., ZALGALLER, V. A., SHTOGRIN, M. I., Mathe-  
matics Institute imeni V. A. Steklov, Academy of Sciences of the USSR, Moscow

"On the Three Successive Minima of a Three-Dimensional Lattice"

Moscow, Doklady Akademii Nauk SSSR, Vol 209, No 1, Mar/Apr 73, pp 25-28

Abstract: Let OA be the shortest vector of the three-dimensional lattice  $\Lambda$ ,  
OB -- the shortest vector of  $\Lambda$  not parallel to OA, and OC -- the shortest  
vector of  $\Lambda$  not parallel to plane OAB. Three such vectors are called the  
three successive minima of  $\Lambda$ , and the parallelepiped  $\Pi$  constructed on these  
vectors is called a reduced parallelepiped.

Theorem 1. The reduced parallelepiped  $\Pi$  is primitive (empty).

This theorem was first geometrically proved by Dirichlet in 1848.  
This proof has always seemed somewhat complicated to crystallographers,  
and therefore N. V. Belov proposed a new proof in 1951. In this paper,  
the authors offer a still simpler proof, and propose an algorithm for re-  
ducing three successive minima to a single parallelepiped.

1/1

USSR

UDC 627.826/.828:624.042.7.001.57

KHESIN, G.L., POPOV, A.I., Candidates of Technical Sciences, DOLBIN, A.I.,  
SHCHELKHANOV, I.V., Engineers

"Investigation of Stresses in Buttress-Type Dams Due to the Action of a Seismic Load by the Photoelasticity Method"

Moscow, Gidrotekhnicheskoye Stroitel'stvo, No 3, 1972, pp 26-28

Abstract: The article deals with an approximate experimental method for the determination of stresses in hydraulic-engineering structures due to the action of seismic forces directed along the stream or across the stream. The research procedure is based upon the use of a centrifugal field for simulation of the seismic load and using the polarization-optical method for determination of the stresses in the dam models. 3 figures, 1 table, 6 bibliographic entries.

1/1

USSR

UDC: 622.011.43

DOLBIN, A. I.

"Estimate of Error in Modeling of Seismic Inertial Loads in Field of Centrifugal Forces on Models by Method of 'Freezing' Deformations"

Sb. Tr. Mosk. Inzh.-Stroit. In-t [Collected Works of Moscow Institute of Construction Engineering], 1972, No 104, pp 117-120 (Translated from Referativnyy Zhurnal Mekhanika, No 12, 1972, Abstract No 12V854, by Ya. M. Ayzenberg)

Translation: Results are presented from determination of errors arising in modeling of seismic loads in a field of centrifugal forces due to heterogeneity of the force field resulting from replacement of the trapezoidal curve of seismic accelerations with a rectangular curve and failure to consider higher forms of oscillation. The maximum total error calculated for a three-dimensional model resulting from heterogeneity of the force field is 11.5%. It is stated that for models of counterforce dams, the error is not over 5%. The error due to replacement of the trapezoidal curve with a rectangular curve is 16-18% when the bending moment is determined in the base of the dam. The calculated seismic force considering three forms of oscillations is defined as the mean square value of seismic forces with the factor

1/2

USSR

Dolbin, A. I., Sb. Tr. Mosk. Inzh.-Stroit. In-t, 1972, No 104, pp 117-120.

0.5 introduced to loads corresponding to all forms but one. It is indicated that for structures, the period of the main tone of free oscillations of which is less than 0.8 sec, the error in determination of the calculated seismic load in the base of the dam due to failure to consider higher forms of oscillation is not over 23% of the values produced for three forms. It is concluded that it is possible to use a centrifugal force field for approximate modeling of the seismic stress state.

2/2

- 60 -



Hematology

USSR

DOLETSKIY, S., Professor, GAVRYUSHOV, V., Doctor of Medical Sciences,  
~~BEZUKHOV~~, L., Candidate of Medical Sciences

"Direct Blood Transfusion"

Moscow, Meditsinskaya Gazeta, 5 Feb 71, p 3

Abstract: Infusions of stored donor blood to which preservatives have been added do not always yield the desired results, because such blood loses its ability to raise the coagulability of the recipient's blood and to stimulate regenerative processes in his tissues, especially during infection. For this reason, the method of direct blood transfusion has been reintroduced at the Children's Surgical Clinic. Parents or relatives of the children serve as blood donors after they have been medically examined and their blood has been typed and matched with that of the recipient. The transfusion is done by means of a special instrument supplied with a gentle finger-type pump. If the donor shows signs of emotional strain, he or she is kept in a different room than the child, and blood is transfused with a simple syringe. The amounts range from 10 to 30 ml of blood per kg body weight of the child per transfusion, with 1-10 transfusions performed at intervals of 3-4 days. To enhance the therapeutic effect, the donors are previously immunized with  
1/2

USSR

DOLETSKIY, S., et al, Meditsinskaya Gazeta, 5 Feb 71, p 3

staphylococcus toxoids and are given prodigiosan -- a biological stimulant of immunogenesis. Direct blood transfusions are conducted on children with severe staphylococcal infections, acute hemorrhagic osteomyelitis, purulent inflammations of lungs and pleura, ulcerative and necrotic enterocolitis, and other septic diseases. The results obtained from 135 direct transfusions performed on 34 children are promising. Most children began to improve after 1-3 transfusions. Weight loss was halted and was followed by weight gain. Sloughing of necrotic tissue as well as granulation and epithelization of wounds were accelerated. Apparently, fresh blood has special beneficial effects on tissue metabolism, endocrine glands, and the autonomic nervous system. The method of direct blood transfusion should find wide clinical applications, especially in the treatment of the newborn.

2/2

1/2 021 UNCLASSIFIED PROCESSING DATE--20NOV70  
TITLE--CHYLOTHORAX AND CHYLOPERITONEUM IN CHILDREN -U-

AUTHOR--(03)--DELETSKIY, S.YA., OVCHINNIKOV, A.A., MOLINA, TS.I.

COUNTRY OF INFO--USSR

SOURCE--KHIRURGIYA, 1970, NR 6, PP 88-94

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PEDIATRICS, LYMPHATIC SYSTEM, SURGERY, DIAGNOSTIC MEDICINE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FNAME--3002/1776

STEP NO--08/0531/70/000/006/0086/0094

CIRC ACCESSION NO--AP0120144

UNCLASSIFIED

2/2 021

UNCLASSIFIED

PROCESSING DATE--2000V7C

CIRC ACCESSION NO--AP0129144

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. UNDER OBSERVATION WERE SEVEN CHILDREN, AGED FROM 4 AND ONE HALF MONTHS TO 11 YEARS, SUFFERING FROM DEFECTS OF MAJOR LYMPHATIC VESSELS. CHYLOTHORAX IN THREE PATIENTS, CHYLOPERITONEUM, IN TWO AND IN TWO CHILDREN THERE WAS A COMBINATION OF THESE AFFECTIONS. THE CAUSE OF LYMPHORRHEA WAS AS FOLLOWS: MALFORMATION OF THE LYMPHATIC SYSTEM (IN 2 PATIENTS), BIRTH INJURY (IN ONE CASE), INJURY OF THE LYMPHATIC DUCT DURING THE OPERATION (IN 2 CASES), AN INFLAMMATORY PROCESS (IN 2 CASES). THREE CHILDREN WERE OPERATED UPON. IN TWO OF THEM THE CAUSE OF LYMPHORRHEA WAS REVEALED AND ELIMINATED BY LIGATION OF THE LYMPHATIC DUCT. FOUR PATIENTS WERE CURED BY REPEATED PLEURAL PUNCTURES. IN THE AUTHORS' OPINION THE INEFFECTIVENESS OF CONSERVATIVE TREATMENT OF CHYLOTHORAX AND CHYLOPERITONEUM IN CHILDREN SERVES AS AN INDICATION TO OPERATIVE INTERVENTION. THE METHOD OF CHOICE IS LIGATION OF THE LYMPHATIC VESSEL ABOVE AND BELOW THE SITE OF LYMPHORRHEA. FACILITY: KAFEDRA DETSKOY KHIRURGII TSU, MOSKVA.

UNCLASSIFIED

1/2 034 UNCLASSIFIED PROCESSING DATE--18SEP70  
TITLE--THE USE OF INTESTINAL TRANSPLANT FOR REVASCULARIZATION AND  
REINNERVATION OF ORGANS OF THE URINARY SYSTEM IN CHILDREN -U-  
AUTHOR-(03)-DOLETSKIY, S.YA., KOROLKOVA, I.A., KORABLEVA, L.K.  
COUNTRY OF INFO--USSR  
SOURCE--KHIRURGIYA, 1970, NR 4, PP 140-145  
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PEDIATRICS, TISSUE TRANSPLANT, KIDNEY, LARGE INTESTINE, SMALL  
INTESTINE, HYPERTENSION, SURGERY, IMMUNITY, TISSUE REGENERATION, ORGAN  
REGENERATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--1983/1235

STEP NO--UR/0531/70/000/004/0140/0145

CIRC ACCESSION NO---AP0054130

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--18SEP70

2/2 034

CIRC ACCESSION NO--AP0054130  
ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. ENTERO AND COLORENOPEXY WAS CARRIED OUT IN CHILDREN SUFFERING FROM NEPHROGENIC HYPERTENSION ASSOCIATED WITH CHRONIC PYELONEPHRITIS, WHERE THE PRINCIPAL PATHOGENETIC CHAIN WAS ISCHEMIA OF THE RENAL TISSUE DEVELOPING AS THE RESULT OF NEPHROSCLEROSIS. THE USE OF A GRAFT FROM THE LARGE INTESTINE IN THIS GROUP OF PATIENTS IS MORE ADVANTAGEOUS THAN THAT FROM THE SMALL INTESTINE DUE TO THE GREATER SURFACE OF THE OPENED SEGMENT, THIS ENABLING WITHOUT DIFFICULTY TO COVER THE WHOLE KIDNEY. THE SECOND GROUP COMPRISED CHILDREN WITH NEUROGENIC DISORDERS OF URINATION AS THE RESULT OF CENTRAL OR AUTONOMIC DISTURBANCES OF VESICAL INNERVATION. THE AUTHORS OPERATED 33 CHILDREN WHO WERE SUBJECTED TO 41 OPERATIONS OF ENTERO OR COLOPEXY, OF THIS NUMBER 14 PATIENTS WITH NEPHROGENIC HYPERTENSION AND 16, WITH NEUROGENIC URINARY BLADDER. A DETAILED DESCRIPTION OF THE TECHNIQUE OF DEMUCOSATION OF THE INTESTINAL GRAFTON THE OPENED SEGMENT IS GIVEN. THE RESULTS OBTAINED IN BOTH GROUPS OF PATIENTS ARE SUFFICIENTLY PROMISING, THIS GIVING GROUNDS FOR HOPE OF WIDER USE OF THE REFERRED TO TECHNIQUE, CONSIDERING THE IMMATURITY OF TISSUES AND ORGANS OF THE CHILDS ORGANISM, CAPABLE OF INTENSIVE REGENERATIVE PROCESSES.

UNCLASSIFIED

Measuring, Testing, Calibrating

USSR

UDC 621.391.832.4

ROSTOVTSSEV, Yu. G., MASLOV, A. Ya., DOLGALEV, S. D., ZHIGORA, P. P.

"A Device for Measuring Edge Distortions of Pulses"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 2, Jan 73, Author's Certificate No 362501, Division H, filed 5 Apr 71, published 13 Dec 72, p 142

Translation: This Author's Certificate introduces: 1. A device for measuring edge distortions of pulses in telegraph communications channels. At the input of the installation is an advancing pulse generator with decoder. One output of the decoder is connected through a switch to a display, and the output of the display is connected to the generator and to the decoder. As a distinguishing feature of the patent, measurements can be made without interrupting communications. For this purpose the input of the device is connected to a second input of the switch through an additional switch with delay in series with a pulse duration measurement device. The second output of the decoder is connected to a second input of the additional switch with delay. 2. A modification of this device distinguished by the fact that the outputs of all six digital places

1/2

USSR

ROSTOVSKIY, Yu. G. et al., USSR Author's Certificate No 362501

of the shift register in the decoder are connected to a single AND circuit. Connection of the second digital place is through a NOT circuit, and the first four outputs are additionally connected to a second AND circuit, the outputs of the AND circuits being the outputs of the decoder.

2/2

- 73 -



UDC 621.375.3  
USSR

TAFT, V. A., GORALIK, V. Yu., BOGOMOLOV, V. A., Moscow Institute of Railway Transportation Engineers

"A Converter Which Changes Frequency to an Odd Number of Times"

USSR Author's Cert. Fiance No 255377, Filed 14 Jun 68, Published 6 Apr 70 (from RZh-Radiotekhnika, No 10, Oct 70, Abstract No 10B308)

Translation: This Author's Certificate introduces a frequency converter which contains a two-tank parametric amplifier formed by output and auxiliary transformers by appropriate connection of their windings. This reduces the dependence of the load current on the load impedance and on the amplitude and frequency of the input signal.  
N. S.

1/1

USSR

UDC 612.8

KRUGLIKOV, R. I., and DOLGANOV, G. M., Institute of Higher Nervous Activity and Neurophysiology, Academy of Sciences USSR, Moscow.

"The Effect of Scopolamine on the Formation, Preservation, and Restoration of Temporary Connections"

Moscow, Zhurnal Vysshey Nervoy Deyatel'nosti imeni I. P. Pavlova, Vol 22, No 4, Jul/Aug 72, pp 837-842

Abstract: Scopolamine hydrobromide was administered to mice intraperitoneally in doses of 2.5 and 5 mg/kg. Both doses given 20 min prior to formation of a passive avoidance conditioned reflex (PACR) produced amnesia. However, the smaller dose given immediately after formation of the PACR or 20 min prior to testing its retention produced no substantial effect. While amnesia induced by the smaller dose was eliminated by reminding, the loss of memory due to the larger dose was not. Formation of an active avoidance conditioned reflex (AACR) was significantly delayed by the smaller dose of scopolamine given 20 min in advance. Though the established AACR's were well preserved, their number was smaller than in control animals during both training and subsequent testing. It is concluded that scopolamine disturbs formation of temporary associations by inhibiting reverberation of nerve impulses and diminishing fear.

1/1

M0046404

D

UR 0482

Soviet Inventions Illustrated, Section II Electrical, Derwent,

244129 HYDRAULIC VELOCITY TRANSDUCER comprises rotor 1 with inlet 2 and outlet 3, housing 4, load-valve 5 with spring 6, auxiliary spool 7 with spring 8, feed pump 9, bypass valve 10, and actuator 11 with spring 12. The centre of spool 7 is offset with respect to the rotor axis, and its gravity centre is located on a radius perpendicular to the spool axis. The position of valve 5 is set so that in case of uniform speed of the rotor the pressure in housing 4 is a function of angular velocity for control of the actuator. At higher speed than the setting, spool 7 compresses spring 8 and partly covers the return line 3 causing a pressure increase in the housing. This produces a signal for acceleration control, the rate of change of which can be adjusted by altering the mass of the spool and its spring.

2/70

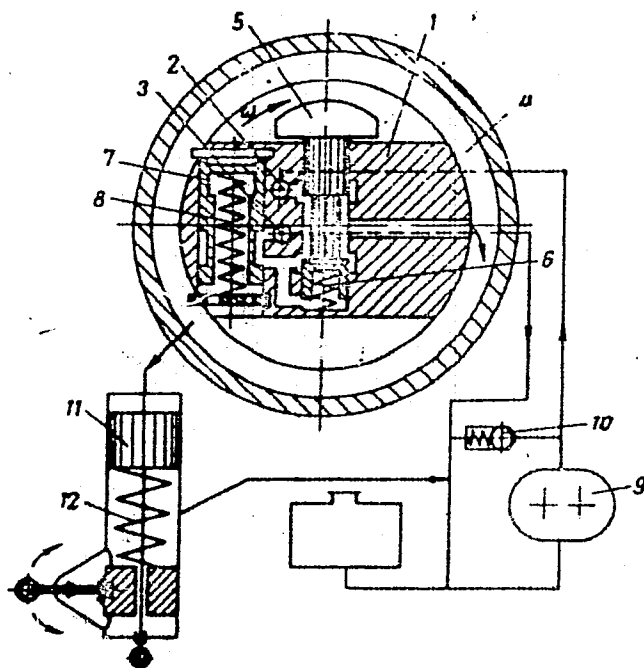
15.2.67 as 1133712/24-6. K.E. DOIGANOV & N.P. SHUKSHIN  
(9.10.69) Bul 17/14.5.69. Class 60. Int.Cl.G 05c.

1/3

4

19781601

AA0046404



2/3

9c

19781602

AA0046404

AUTHORS: Dolganov, K. Ye.; Shukshin, N. P.

Kiyevskiy Avtomobil'no - Dorozhnyy Institut

19781603

3/3

USSR

UDC: 535.373.2

BROUDE, V. L., DOLGANOV, V. K., SLOBODSKOY, F. V., SHEKA, Ye. F., Institute of Solid State Physics, Academy of Sciences of the USSR

"Exciton-Phonon Interaction and Energy Transfer in a Benzene Crystal and in Isotopically Admixed Deuterobenzene Crystals"

Moscow, Izvestiya Akademii Nauk SSSR: Seriya Fizicheskaya, Vol 37, No 2, Feb 73, pp 311-317

Abstract: The paper presents the results of studies done at 4.2-20°K on exciton-phonon and vibron-phonon absorption and luminescence spectra of a benzene-d<sub>0</sub> crystal and an isotopically admixed crystal of d<sub>0</sub>-benzene in d<sub>6</sub>-benzene. The energy of interaction between electron and vibron excitations on the one hand and phonons on the other hand is determined, as well as the probabilities of the corresponding phototransitions. The energy transfer between the dopant molecules is determined in the isotopically admixed crystal. The authors thank Ye. M. Rodina for doing the computer calculations.

1/1

USSR

BROUDE, V. L., ~~DOIGANOV, V. K.~~ Institute of Solid State Physics of the Academy of Sciences USSR, Chernogolovka

"Exciton-Phonon Interaction in Benzene Crystals"

Leningrad, Fizika Tverdogo Tela, Vol. 14, No 1, Jan 72, pp 274-277

Abstract: Exciton-phonon absorption which accompanies electron transitions of a benzene crystal was measured. The authors obtained the spectral distribution of the absorption coefficient close to the purely electron molecular transition  $A_{1g} \rightarrow B_{2u}$ , the vibron transition  $A_{1g} \rightarrow B_{2u} \cdot E_{2g}$ , and the transition close to the purely electron transition  $A_{1g} \rightarrow B_{2u}$  of the admixture of hexodeuterobenzene in the benzene crystal. The transitions to these states were selected because exciton zones of different widths correspond to them in the crystal: for the  $B_{2u}$  level in the pure crystal it is approximately  $64 \text{ cm}^{-1}$ ; i.e., of the same order as the frequency of optical phonons; for the vibron level  $B_{2u} \cdot E_{2g} \leq 5 \text{ cm}^{-1}$ , which is considerably less than the frequency of optical phonons; and the still narrower zone is compared to electron transition in the admixture. Exciton-phonon absorption close to purely electron absorption was, as expected, very similar to absorption close to the vibron band. The exciton-phonon absorption was stronger as the  $1/2$

USSR

BROUDE, V. L. and DOLGANOV, V. K., Fizika Tverdogo Tela, Vol 14, No 1, Jan 72, pp 274-277

band of the corresponding component of the exciton triplet was stronger, but weaker the further away it moved from the exciton-phonon spectrum. The general form of this spectrum resembles exciton-phonon absorption of the admixture, and this is associated with the fact that for a relatively wide exciton zone of the benzene crystal the half-width of the density functions of the states in it is only 10-12  $\text{cm}^{-1}$ . Where absorption is caused basically by transitions with generation of acoustical phonons, the spectra of the admixture and the pure crystal are highly different if they are compared for the same polarizations of the incident light. This again emphasizes the considerable dependence of the probability of exciton-phonon transitions with the participation of acoustical phonons on the wave vector. The authors comment that the results obtained in this study can be qualitatively understood on the basis of existing theoretical ideas but that an explanation of the fine-line features of the spectrum and their quantitative interpretation require direct calculations using dispersion relationships in exciton and phonon zones, and they hope that the results of this study may provide the basis for calculations of this type.

2/2

- 52 -



USSR

UDC 621.317.791

DOLGANOV, V. V., KOLOMENIN, V. V.

"Identical Parameter Indicator"

USSR Author's Certificate No 305377, filed 23 Dec 69, published 8 Jul 71  
(from RZh--Avtomatika, Telemekhanika i vychislitel'naya tekhnika, No 4, Apr 72,  
Abstract No 4A477P)

Translation: An identical parameter indicator is proposed which contains profile indicators with a counting index, a scale, master and compensating sensors in each measurement channel, an amplifier, a motor connected to its output, a reduction gear, and a tape drive. For simultaneous generation of the integral average and individual estimates of the set of indexed parameters and to insure control of the magnitude of the deviation of each indexed parameter from the mean value of its set, the device is equipped with dividing resistors, a common compensating sensor, an auxiliary amplifier, and a digital display. The master and compensating sensors of each channel are connected to the mismatch signal amplifier for the mismatch between them, and the outputs of all the master sensors are connected via dividing resistors to the input of the auxiliary amplifier of the mismatch signal of the aggregate signal of the master and common compensating sensors. The output of the latter is connected through its  
1/2

USSR

DOLGANOV, V. V., et al., USSR Author's Certificate No 305377, filed 23 Dec 69, published 8 Jul 71

dividing resistor via the same amplifier to the control winding of the motor, connected through a reduction gear to the common compensating sensor and to the counting index and the digital display of the average integral values of the set of index parameters. There is 1 illustration.

2/2

- 36 -

USSR.

UDC: 628.9.038

DOLGANOV, V. V., LAZEYEV, M. V.

"A Multiple-Electrode Electroluminescent Display Panel"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 13, May 72, Author's Certificate No 335794, Division H, filed 3 Aug 70, published 11 Apr 72, p 233

Translation: This Author's Certificate introduces: 1. A multiple-electrode electroluminescent display panel which contains a glass substrate, transparent electrode with the necessary image shape, layers of electroluminescent composition and dielectric applied to the substrate, a common electrode, and the same number of leads as electrodes. As a distinguishing feature of the patent, in order to ensure reliable electrical connection between the leads and the electrodes, to increase the mechanical strength of the lead fastening, and to improve technological properties, the ends of the leads for the transparent electrodes are welded to the base of the glass substrate and are flush with its surface at points of application of the nonworking section of the corresponding electrode, forming an internal contact with the electrode. 2. A modification of this display panel dis-

1/2

- 102 -

USSR

DOLGANOV, V. V., LAZEYEV, M. V., USSR Author's Certificate No 335794

tinguished by the fact that the nonworking section of the common electrode, as it bends around the layers of electroluminescent composition and dielectric applied over the transparent electrodes, comes out on the surface of the section of substrate into which the end of the lead of the common electrode is welded.



2/2

USSR

UDC 8.74

GAVRILOV, YU. A., ~~DOLGANOVSKIY, V. YU.~~, MITROFANOV, YU. I.

"Study of the Characteristics of a Time-Sharing Computer System by the method of Programmed Simulation"

V sb. Sistemn. modelirovaniye (Systems Simulation -- collection of works), vyp. 2, Novosibirsk, 1971, pp 71-96 (from RZh-Kibernetika, No 9, Sep 72, Abstract No 9V625)

Translation: A hypothetical single-processor time sharing computer system the composition, structure and functioning algorithms of which were selected on the basis of analyzing existing foreign systems was used as the object of investigation the results of which are presented in this paper. The technical parameters of almost all the devices entering into the hypothetical time-sharing computer system are taken equal to the parameters of the corresponding Soviet series-manufactured devices.

1/1

- 72 -

1/2 018 UNCLASSIFIED PROCESSING DATE--30OCT70  
TITLE--KINETICS AND MECHANISM OF MANNICH BASE DISSOCIATION IN AQUEOUS  
BUFFERS -U-  
AUTHOR-(04)-BELIKOV, V.M., BELOKON, YU.N., DOLGAYA, M.M., MARTINKOVA, N.S.  
COUNTRY OF INFO--USSR  
SOURCE--TETRAHEDRON 1970, 26(5), 1199-216  
DATE PUBLISHED-----70  
SUBJECT AREAS--CHEMISTRY  
TOPIC TAGS--CHEMICAL REACTION KINETICS, CHEMICAL REACTION MECHANISM,  
CHEMICAL DECOMPOSITION, AMINE, ORGANIC NITRO COMPOUND, PROPANE, BUTANE  
CTRL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--2000/1631 STEP NO--UK/0000/70/026/005/1199/1216  
CIRC ACCESSION NG--AP0125253  
UNCLASSIFIED

2/2 018

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125253

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE RATES OF DECOMPN. IN WATER OF

1, (METHYLAMINO), 2, METHYL, 2, NITROPROPANE,  
1, (DIMETHYLAMINO), 2, METHYL, 2, NITROPROPANE,  
1, (DIETHYLAMINO), 2, METHYL, 2, NITROPROPANE,  
1, (DIPROPYLAMINO), 2, METHYL, 2, NITROPROPANE,  
1, (DIISOPROPYLAMINO), 2, METHYL, 2, NITROPROPANE,  
1, (DIETHYLAMINO), 2, 2, DINITROPROPANE,

1, (DIMETHYLAMINO), 2, ETHYL, 2, NITROBUTANE,  
1, (DIETHYLAMINO), 2, ETHYL, 2, NITROBUTANE,

PIPERIDINO, 2, METHYL, 2, NITROPROPANE AT DIFFERENT PH AND TEMPS. THE  
PROPOSED REACTION MECHANISM INVOLVES UNIMOL. DISSOCN. OF AN UNPROTONATED  
BASE AS THE RATE DETG. STEP WITH FORMATION OF IMMONIUM IONS AND  
CARBANIONS. THE DISSOCN. RATES ARE GREATLY INFLUENCED BY THE SIZE BOTH  
OF THE ALKYL SUBSTITUENTS AT THE AMINE N AND OF THE LEAVING GROUP. AN  
EXCELLENT CORRELATION IS OBSERVED BETWEEN THESE RATES AND THE HYDROLYSIS  
RATES OF 3,3,SUBSTITUTED MONO,P,BROMOPHENYL GLUTARATE ESTERS. THIS  
FACT INDICATES THAT ALKYL GROUPS EXERT A PREDOMINANTLY STERIC EFFECT ON  
THE REACTION VELOCITY. POSSIBLE MECHANISMS ARE DISCUSSED.  
FACILITY: INST. ORG. ELEM. COMPD., MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC: 535.231.62-1

BABUSHKIN, V. V., VISHNEVSKIY, A. K., DOLGIKH, I. I., LIBOVA, I. V., All-Union Scientific Research Institute of Metrology imeni D. I. Mendeleyev

"Investigation of the Energy and Spectral Sensitivity of Receivers in the Near-Infrared Spectral Region"

Leningrad, Issledovaniya v Oblasti Opticheskikh i Svetovykh Izmereniy, Trudy Metrologicheskikh Institutov SSSR, No 114(174), 1970, pp 141-146

Abstract: The paper presents the results of an investigation of the energy and spectral sensitivity of BSG-2 and BKM-5 semiconductor bolometers and the type BMK-3 metallic bolometers. The measurements were made in the spectral region from 1 to 8 microns. The measurement procedure and equipment are described. Four figures, two bibliographic references.

1/1



USSR

UDC: 539.3:534.1

VOL'MIR, A. S., DOIGIN, L. N., SKURLATOV, E. D., and SOLOVYENKO, V. R.

"Behavior of Cylindrical Shells Under the Action of Mobile Loads"

Tr. VII Vses. konferentsii po teorii obolochek i plastinok. 1969  
(Transactions of the 7th All-Union Conferents on the theory of Shells and Plates, 1969) Moscow, "Nauka," 1970, pp 153-155 (from RZh-Mekhanika, No. 2, Feb 71, Abstract No. 2V256)

Translation: A study is made of the reaction of circular hinged supporting cylindrical shells to a longitudinal pressure wave with a plane front and an exponentially varying pressure behind the front. For the computations, the nonlinear theory of thin shells is used. The load on the shell is compounded of the pressure in the incident wave and the structural damping. The differential equations are replaced by difference equations. In a machine experiment, it was established that the velocity of propagation of the load front and the preliminary longitudinal stresses in the shell strongly affect the increase in buckling. The qualitatively obtained results agree with large-scale experimentation. The experimental results are obtained in tests of cylindrical shells in a shock tube. V. M. Kornev

1/1

- 117 -

USSR

UDC: 629.78.017.2

KHANTSEVEROV, F. R., DOLGIKH, N. A.

"Methods of Optimizing a Program for Controlling the Angular Position of a Space Vehicle"

Moscow, Upr. dvizhushchimisya ob'yektami. Tr. IV Vses. soveshch. po avtomat. upr. Tbilisi, 1968--sbornik (Control of Moving Objects. Works of the Fourth All-Union Conference on Automatic Control. Tbilisi, 1968--collection of papers), 1972, pp 147-160 (from RZh-Raketostroyeniye, No 10, Oct 72, abstract No 10.41.55)

Translation: A telescope for an astronavigational and astro-orientation system is installed on board an artificial earth satellite. In order to establish the reference coordinate system, periodic alignment of the astromodule with a luminary (star) is necessary with rotation of the unit during flight of the satellite. Priority features and a catalog of luminaries are given. There are also limiting conditions on the number of rotations, the turning velocity, and the angle of inclination of the astromodule. An optimum program must be found for sampling the reference net of luminaries within the permissible expenditures of the energy resources of the satellite.

1/2

USSR

KHANTSEVEROV, F. R., DOLGIKH, N. A., Upr. dvizhushchimisya ob"yektami. Tr. IV Vses. soveshch. po avtomat. upr. Tbilisi, 1968--sbornik, 1972, pp 147-160

Different methods are considered for solving this multiple-extremum problem. The problem is formalized as applied to the general case and to special cases. A comparative quantitative evaluation is made of the effectiveness and accuracy of solution of the given problem by different methods. One illustration, two tables, bibliography of four titles. Résumé.

2/2

- 47 -

172 014 UNCLASSIFIED PROCESSING DATE--090670  
TITLE--UNDERGROUND STORAGE OF HARMFUL WASTES -U-  
AUTHOR--(02)-DOLGIKH, P.F., BAKHUROV, V.G. D  
COUNTRY OF INFO--USSR  
SOURCE--AT. ENERG. (USSR); 28: 70-1 (JAN 1970)  
DATE PUBLISHED--JAN70  
SUBJECT AREAS--NUCLEAR SCIENCE AND TECHNOLOGY  
TOPIC TAGS--RADIOACTIVE WASTE DISPOSAL, UNDERGROUND FACILITY, CLAY  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRA--1979/1815 STEP NO--UR/0089/70/028/000/0070/0071  
CIRC ACCESSION NO--AP0048118  
UNCLASSIFIED

2/2 014 UNCLASSIFIED PROCESSING DATE--09OCT70  
CIRC ACCESSION NO--AP0048118  
ABSTRACT/EXTRACT--(U) GP-O- ABSTRACT. THE UNDERGROUND STORAGE OF COMPLEX  
SALT SOLUTIONS, INCLUDING RADIOACTIVE WASTES, IN NATURAL OR EXPLOSION  
PRODUCED CAVES IN CLAY SOILS CAN BE EFFECTIVE, ESPECIALLY WITH WASTES  
TREATED AND SOLIDIFIED WITH BENTONITE CLAY AND LYE.

89

UNCLASSIFIED

USSR

UDC: 532.72

AGEYEV, S. G., DOLGIKH, V. I., MOROZOV, I. I., NAKOZIN, V. N.

"Investigation of Mass Exchange Between a Gas and a Liquid in a Hermetically Sealed Vessel When it is Vertically Oscillated"

V sb. Materialy XXIII Nauch.-tekhn. konferentsii Chelyabinsk. politekhn. in-ta. Sekts. Avtotrakt. fak. i Fak. dvigateley, priborov i avtomatov  
(Materials of the Twenty-Third Scientific and Technical Conference of Chelyabinsk Polytechnical Institute. Section of the Tractor Department and the Department of Engines, Instruments and Automatic Facilities), Chelyabinsk, 1970, p 118 (from RZh-Mekhanika, No 7, Jul 71, Abstract No 7B831)

Translation: The paper is a report on the results of experiments on determining the parameters of mass exchange in a vertical cylindrical vessel. Various mechanisms of mass exchange are analyzed which can be realized in a liquid-gas system subjected to longitudinal vertical oscillations of various frequencies: mass exchange through the flat phase interface; and

1/2

AGEYEV, S. G. et al., Materialy XXIII Nauch.-tekhn. konferentsii Chelyabinsk. politekhn. in-ta Sekts. Avtotrakt. fak. i Fak. dvigateley. priborov i avtomatov, Chelyabinsk, 1970, p 118

through bubbles located in the liquid or introduced through the surface of the liquid. It is shown that at low frequencies (a few Hz to dozens of Hz), mass exchange in thin-walled vessels is determined chiefly by the system of vortexes formed in the liquid.

2/2

- 71 -

USSR

UDC: 621.396.932.1

DOLGIN, I. Yu.

"Statistical Characteristics of the Accuracy of a Direction-Finder of Complex Source Commensurate With the Directional Diagram of the D-F Antenna"

V sb. Vopr. radiotekhniki (Radio Engineering Problems -- collection of works)  
Tula, Tula Polytechnical Institute, 1970, 150-154 (from RZh-Radiotekhnika, No 3, March 71, Abstract No. 3G69)

Translation: An investigation is made of the statistical characteristics of direction-finder accuracy under the condition that the radio sources be uniformly distributed, with random phase and Rayleigh amplitude distribution. It is shown that with increasing angular dimensions of the radio direction-finder system, the direction-finder output probability for the contour of the radiator system drops from a magnitude of 0.14. Two illustrations, bibliography of five.  
V. Ch.

1/1

- 23 -



USSR

UDC 621.391:519.2

DOLGIN, I. YU.

"Statistical Characteristics of a Signal from a System of Random Emitters  
Located at an Interface"

Vopr. radiotekhniki—V sb. (Problems of Radio Engineering -- collection of works),  
Tula, Tula Polytechnical Institute, 1970, pp 154-157 (from RZh-Radiotekhnika,  
No 4, Apr 71, Abstract No 4A89)

Translation: A study was made of the aggregate signal from a radiation source  
comprising a large number of monochromatic radiators with random parameters  
located above the interface of two media considering signals from mirror re-  
flections from the interface of all the radiators. There is 1 illustration  
and a 1-entry bibliography.

1/1

Refractory Materials

USSR

UDC: 666.763.4

IVANOV, Ye. V., DOLGINA, G. Z., BUNINA, V. P., ABBAKUMOV, V. G., TARAKANCHIKOV, G. A. Ukrainian Scientific-Research Institute of Refractories, All-Union Institute of Refractories

"Production of Magnesium Oxide From Sea Water and Dolomites"

Moscow, Ogneupory, No 12, 1973, pp 25-50.

Abstract: A technological process has been developed for the production of synthetic magnesium oxide (97% MgO) by a hydrate plan from Black Sea water and dolomites. The two-stage process of treatment of magnesium hydroxide paste produced from the sea water and dolomites, consisting of drying-briquetting-roasting or dehydration-briquetting-roasting, produces dense powders for the production of refractory products. A number of steps have been taken to assure achievement of high roasting temperatures of briquettes in the 22-meter-long rotating furnace, allowing the fraction of primary air to be regulated and its mixing with the fuel to be improved. Roasting is performed at maximum temperatures of 1750-1770° C, with the quantity of primary air injected reaching 62% of the theoretically necessary quantity.

1/1

Burn Studies

USSR

UDC 617-001.17-06:616-008.939.6-035.355:577.  
156.014

DOLGINA, M. I., PANOVA, Yu. M., ZAYETS, T. L., and KUZNETSOVA, A. N.,  
Institute of Surgery im. A. V. Vishnevskiy, Academy of Medical Sciences USSR,  
Moscow

"Ways of Slowing Protein Catabolism in Burns"

Moscow, Sovetskaya Meditsina, No 1, 1973, pp 33-36

Abstract: Contrical, an East German drug known to inhibit trypsin, chymotrypsin, plasmin, and kallidinogenase, was administered to 28 patients with extensive thermal burns, all of whom were suffering from hypoproteinemia, hypoalbuminemia, and elevated globulin levels at the initiation of contrical treatment. The drug prevented the continued decrease in serum proteins, especially albumins, characteristic of the early period of burns. Two to 3 days after the burn the activity of the proteolytic enzymes increased markedly along with the development of hypo- and dysproteinemia. Contrical was suspended after 7 days but proteolytic activity began to decrease and continued to do so for 7 more days. At this time the patients exhibited a tendency toward hyperexcretion of nitrogen (urea nitrogen) and sharp increase in excretion of creatine. Thus, contrical would seem to be efficacious in inhibiting the breakdown of tissue and serum proteins that normally occurs in burns.

1/1

1/2 023 UNCLASSIFIED PROCESSING DATE--23OCT70  
TITLE--LEUKOPOIETINS IN ASEPTIC INFLAMMATION -U-

AUTHOR--(04)-KAKHETELIDZE, M.G., SHLYGIN, A.N., DULGINA, Z.M., DUBROVSKAYA,  
R.M.

COUNTRY OF INFO--USSR

SOURCE--PATOLOGICHESKAYA FIZIOLOGIYA I EKSPERIMENTAL'NAYA TERAPIYA, 1970,

VOL 14, NR 2, PP 79-83

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--BLOOD SERUM, DOG, HORSE, HYDROCARBON, PROCESSED PLANT PRODUCT,  
LEUKOPOIESIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1988/0022

STEP NO--UR/0396/70/014/002/0079/0033

CIRC ACCESSION NO--AP0105121

UNCLASSIFIED